

OIB - DC-8 11/07/14 Science Report

Aircraft:

[DC-8](#) ([See full schedule](#))

Date:

Friday, November 7, 2014

Mission:

OIB

Mission Location:

Antarctica

Mission Summary:

F13 Thwaites-Smith-Kohler 8

Accomplishments

- Low-altitude survey (1,500 ft AGL) over Thwaites, Smith, Kohler, and Pope Glaciers.
- ATM, albedo, KT-19, snow, Ku-band, MCoRDS, gravimeter, and DMS were operated on the survey lines.
- Collected additional high altitude data on transits to and from the survey area.
- Ramp pass at Punta Arenas airport after takeoff at 2,000 ft AGL.
- Satellite tracks: none.
- Repeat Mission: parts in 2012.

Instrument	Operated	Data Volume	Instrument Issues/Comments
ATM	yes	31 GB	None.
CAMBOT	yes	55 GB	None.
DMS	yes	61 GB	None. Recorded 9,200 frames.
Snow Radar	yes	317 GB	None.
Ku-band Radar	yes	317 GB	None.
MCoRDS	yes	1.0 TB	None.
KT-19	yes	10 MB	None.
Albedo	yes	2.5 GB	None.
Albedo camera	yes	335 MB	None.
Gravimeter	yes	2.0 GB	Error message during takeoff. Data is believed to be good.

Mission Report (Michael Studinger, Mission Scientist)

Today's flight is a mission plan, based on the western portion of the 2012 PTSK High-Altitude mission. It is designed to collect dh/dt measurements over the Smith, Kohler and Pope Glacier catchments. The 2012 lines were truncated in the east (mostly the portions over Mount Murphy) and extended to the west to capture the entire Kohler trunk.

LiDAR data collection started 11/07/2014 15:15 UTC and ended at 19:19 UTC. In total we collected 4.1 hours of LiDAR data. Conditions in the survey area were perfect. ATM recorded 100% surface returns. The combination of wildlife and terrain made it impossible to complete some the survey lines near Mt. Murphy.

Images:

Figure 1: Today's trajectory in yellow.



[Read more](#)

Submitted by:

Michael Studinger on 11/07/14

Related Flight Report:

DC-8 11/07/14

Flight Number:

150120

Payload Configuration:

Operation IceBridge 2014

Nav Data Collected:

Yes

Total Flight Time:

10.9 hours

Submitted by:

Frank Cutler on 11/08/14

Flight Segments:

From:	SCCI	To:	SCCI
Start:	11/07/14 11:51 Z	Finish:	11/07/14 22:46 Z
Flight Time:	10.9 hours		
Log Number:	158003	PI:	Michael Studinger
Funding Source:	Bruce Tagg - NASA - SMD - ESD Airborne Science Program		
Purpose of Flight:	Science		
Comments:	Purpose of Flight: OIB 2014 Science Flight ? Thwaites-Smith-Kohler 8 at 1,500 ft AGL Aircraft Status: Airworthy Sensor Status: All instruments operated Significant Issues: None Accomplishments: Takeoff at 311 11 51 43 Land 311 22 46 10 After takeoff accomplish a calibration ramp pass at 1158Z and 2000?agl. Climb to transit altitude of FL330. Start descent at 1518Z. Complete northwest/southeast parallel tracks at 1500 ft agl as follows: 1. Northwest 1551Z-1615Z 2. Southeast 1620Z-1634Z 3. Northwest 1639Z-1654Z 4. Southeast 1659Z-1714Z 5. Northwest 1718Z-1731Z 6. Southeast 1736Z-1755Z 7. Northwest 1802Z-1820Z 8. Southeast 1828Z-1847Z Climb to FL350 for transit to SCCI. Planned events: Continue science flights out of Punta Arenas, Chile		

Flight Hour Summary:

	158003
Flight Hours Approved in SOFRS	300
Total Used	292.1
Total Remaining	7.9

158003 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining
10/06/14	150101	Science	1.2	1.2	298.8
10/07/14 - 10/08/14	150102	Science	5.2	6.4	293.6
10/08/14	150103	Science	3.7	10.1	289.9
10/13/14	150104	Transit	10.4	20.5	279.5
10/13/14	150105	Transit	3.2	23.7	276.3
10/16/14	150106	Science	11	34.7	265.3

10/18/14 - 10/19/14	150107	Science	11.9	46.6	253.4
10/20/14	150108	Science	11.7	58.3	241.7
10/23/14	150109	Science	11.8	70.1	229.9
10/25/14	150110	Science	11.4	81.5	218.5
10/26/14 - 10/27/14	150111	Science	11.9	93.4	206.6
10/28/14	150112	Science	11.5	104.9	195.1
10/29/14	150113	Science	10.9	115.8	184.2
10/31/14	150114	Maintenance	2.8	118.6	181.4
11/01/14	150115	Maintenance	3	121.6	178.4
11/02/14	150116	Science	10.9	132.5	167.5
11/03/14	150117	Science	11.1	143.6	156.4
11/05/14	150118	Science	11.4	155	145
11/06/14	150119	Science	11.1	166.1	133.9
11/07/14	150120	Science	10.9	177	123
11/08/14	150121	Science	11.4	188.4	111.6
11/10/14	150122	Science	11.2	199.6	100.4
11/11/14	150123	Science	11.2	210.8	89.2
11/13/14	150124	Science	11.4	222.2	77.8
11/14/14	150125	Science	11.5	233.7	66.3
11/15/14	150126	Science	11.2	244.9	55.1
11/16/14	150127	Science	11.1	256	44
11/21/14	150128	Science	11.2	267.2	32.8
11/22/14	150129	Science	10.8	278	22
11/24/14	150130	Transit	2.9	280.9	19.1
11/25/14 - 11/26/14	150131	Transit	11.2	292.1	7.9

Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.

[NASA Home](#)

Page Last Updated: April 22,
2017

Page Editor: Erin Justice

NASA Official: Bruce A.

Tagg

- [Budgets, Strategic Plans and Accountability Reports](#)
- [Equal Employment Opportunity Data Posted Pursuant to the No Fear Act](#)
- [Information-Dissemination Policies and Inventories](#)

- [Freedom of Information Act](#)
 - [Privacy Policy & Important Notices](#)
 - [NASA Advisory Council](#)
 - [Inspector General Hotline](#)
 - [Office of the Inspector General](#)
 - [NASA Communications Policy](#)
-
- [Contact NASA](#)
 - [Site Map](#)
 - [USA.gov](#)
 - [Open Government at NASA](#)

Source URL: https://airbornescience.nasa.gov/science_reports/OIB_-_DC-8_11_07_14_Science_Report